

| L Number | Hits  | Search Text  | DB  | Time stamp       |
|----------|-------|--|---|------------------|
| -        | 2115  | (502/350,351,242,250,254,309,323,341).CCLS.  | USPAT;<br>US-PGPUB                                      | 2003/08/11 14:09 |
| -        | 19    | (502/242,309,351).CCLS.  | USPAT;<br>US-PGPUB                                      | 2003/08/11 14:20 |
| -        | 97    | ((502/350,351,242,250,254,309,323,341).CCLS.<br>and (titania or (titanium adj \$2oxide) or<br>"tio.sub.2") with ("photo-cataly"\$3 or<br>(photo adj cataly\$3) or photocataly\$3))   | USPAT;<br>US-PGPUB                                      | 2003/08/11 14:22 |
| -        | 3     | ((502/350,351,242,250,254,309,323,341).CCLS.<br>and (titania or (titanium adj \$2oxide) or<br>"tio.sub.2") with ("photo-cataly"\$3 or<br>(photo adj cataly\$3) or photocataly\$3))   | USPAT;<br>US-PGPUB                                      | 2003/08/11 14:23 |
| -        | 3     | ((502/350,351,242,250,254,309,323,341).CCLS.<br>and (titania or (titanium adj \$2oxide) or<br>"tio.sub.2") with ("photo-cataly"\$3 or<br>(photo adj cataly\$3) or photocataly\$3))<br>and (cation or (positive\$2 adj charge\$1))  | USPAT;<br>US-PGPUB                                      | 2003/08/11 14:28 |
| -        | 3     | ((502/350,351,242,250,254,309,323,341).CCLS.<br>and (titania or (titanium adj \$2oxide) or<br>"tio.sub.2") with ("photo-cataly"\$3 or<br>(photo adj cataly\$3) or photocataly\$3))<br>and (cation or (positive\$2 adj charge\$1))<br>same (silica or (silicon adj \$2oxide) or<br>"sio.sub.2" or alumina or (\$2aluminum adj<br>\$3oxide) or "al.sub.2 o.sub.3" or<br>(zirconium adj phosphate))   | USPAT;<br>US-PGPUB                                      | 2003/08/11 14:25 |
| -        | 9700  | ((502/350,351,242,250,254,309,323,341).CCLS.<br>and (titania or (titanium adj \$2oxide) or<br>"tio.sub.2") with ("photo-cataly"\$3 or<br>(photo adj cataly\$3) or photocataly\$3))<br>and (cation or (positive\$2 adj charge\$1))<br>with exchange) and<br>((502/350,351,242,250,254,309,323,341).CCLS.)<br>and (titania or (titanium adj \$2oxide) or<br>"tio.sub.2") with ("photo-cataly"\$3 or<br>(photo adj cataly\$3) or photocataly\$3))<br>and (cation or (positive\$2 adj charge\$1))<br>same (silica or (silicon adj \$2oxide) or<br>"sio.sub.2" or alumina or (\$2aluminum adj<br>\$3oxide) or "al.sub.2 o.sub.3" or<br>(zirconium adj phosphate)) | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/12 13:57 |
| -        | 30    | ((cation or (positive\$2 adj charge\$1))<br>with (silica or (silicon adj \$2oxide) or<br>"sio.sub.2" or alumina or (\$2aluminum adj<br>\$3oxide) or "al.sub.2 o.sub.3" or<br>(zirconium adj phosphate))) and (titania<br>or (titanium adj \$2oxide) or "tio.sub.2")<br>with ("photo-cataly"\$3 or (photo adj<br>cataly\$3) or photocataly\$3)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/11 15:56 |
| -        | 46374 | (cation or (positive\$2 adj charge\$1)) with<br>exchang\$3   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/12 13:57 |
| -        | 5958  | ((cation or (positive\$2 adj charge\$1))<br>with exchang\$3) and exchang\$3 with (silica<br>or (silicon adj \$2oxide) or "sio.sub.2" or<br>alumina or (\$2aluminum adj \$3oxide) or<br>"al.sub.2 o.sub.3" or (zirconium adj<br>phosphate))   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/11 15:55 |
| -        | 10    | ((cation or (positive\$2 adj charge\$1))<br>with exchang\$3) and exchang\$3 with (silica<br>or (silicon adj \$2oxide) or "sio.sub.2" or<br>alumina or (\$2aluminum adj \$3oxide) or<br>"al.sub.2 o.sub.3" or (zirconium adj<br>phosphate))) and (titania or (titanium adj<br>\$2oxide) or "tio.sub.2") with<br>("photo-cataly"\$3 or (photo adj cataly\$3)<br>or photocataly\$3)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/11 15:56 |

|   |       |  |   |                  |
|---|-------|--|---|------------------|
| - | 10464 | ((cation or (positive\$2 adj charge\$1)) with<br>exchang\$3  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/12 14:00 |
| - | 0     | ((cation or (positive\$2 adj charge\$1))<br>with exchang\$3) and (titania or (titanium<br>adj \$2oxide) or "tio.sub.2") with<br>("photo-cataly"\$3 or (photo adj cataly\$3)<br>or photocataly\$3)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/13 14:12 |
| - | 0     | ((cation or (positive\$2 adj charge\$1))<br>with exchang\$3) and (titania or (titanium<br>adj \$2oxide) or "tio.sub.2") same<br>("photo-cataly"\$3 or (photo adj cataly\$3)<br>or photocataly\$3)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/12 13:59 |
| - | 0     | ((cation or (positive\$2 adj charge\$1))<br>with exchang\$3) and (titania or (titanium<br>adj \$2oxide) or "tio.sub.2") and<br>("photo-cataly"\$3 or (photo adj cataly\$3)<br>or photocataly\$3)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/12 14:00 |
| - | 5558  | (titania or (titanium adj \$2oxide) or<br>"tio.sub.2") and ("photo-cataly"\$3 or<br>(photo adj cataly\$3) or photocataly\$3)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/13 14:05 |
| - | 59320 | ((cation or (positive\$2 adj charge\$1) or<br>silica or (silicon adj \$2oxide) or<br>"sio.sub.2" or alumina or (\$2aluminum adj<br>\$3oxide) or "al.sub.2 o.sub.3" or<br>(zirconium adj phosphate)) with exchang\$3  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/12 14:08 |
| - | 83    | ((titania or (titanium adj \$2oxide) or<br>"tio.sub.2") and ("photo-cataly"\$3 or<br>(photo adj cataly\$3) or photocataly\$3))<br>and ((cation or (positive\$2 adj charge\$1)<br>or silica or (silicon adj \$2oxide) or<br>"sio.sub.2" or alumina or (\$2aluminum adj<br>\$3oxide) or "al.sub.2 o.sub.3" or<br>(zirconium adj phosphate)) with exchang\$3)                         | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/12 14:02 |
| - | 15574 | ((silica or (silicon adj \$2oxide) or<br>"sio.sub.2" or alumina or (\$2aluminum adj<br>\$3oxide) or "al.sub.2 o.sub.3" or<br>(zirconium adj phosphate)) with exchang\$3  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/12 14:07 |
| - | 50828 | ((cation or (positive\$2 adj charge\$1)) with<br>exchang\$3  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/12 14:08 |
| - | 6122  | ((silica or (silicon adj \$2oxide) or<br>"sio.sub.2" or alumina or (\$2aluminum adj<br>\$3oxide) or "al.sub.2 o.sub.3" or<br>(zirconium adj phosphate)) with exchang\$3)<br>and ((cation or (positive\$2 adj charge\$1))<br>with exchang\$3)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/13 14:05 |
| - | 13    | ((silica or (silicon adj \$2oxide) or<br>"sio.sub.2" or alumina or (\$2aluminum adj<br>\$3oxide) or "al.sub.2 o.sub.3" or<br>(zirconium adj phosphate)) with exchang\$3)<br>and ((cation or (positive\$2 adj charge\$1))<br>with exchang\$3) and ((titania or<br>(titanium adj \$2oxide) or "tio.sub.2") and<br>("photo-cataly"\$3 or (photo adj cataly\$3)<br>or photocataly\$3)) | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/12 14:08 |
| - | 48    | ((silica or (silicon adj \$2oxide) or<br>"sio.sub.2" or alumina or (\$2aluminum adj<br>\$3oxide) or "al.sub.2 o.sub.3" or<br>(zirconium adj phosphate)) with exchang\$3)<br>and ((titania or (titanium adj \$2oxide) or<br>"tio.sub.2") and ("photo-cataly"\$3 or<br>(photo adj cataly\$3) or photocataly\$3))   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/12 14:13 |

|   |      |   |   |                  |
|---|------|---|---|------------------|
| - | 35   | ((silica or (silicon adj \$2oxide) or "sio.sub.2" or alumina or (\$2aluminum adj \$3oxide) or "al.sub.2 o.sub.3" or (zirconium adj phosphate)) with exchang\$3) and ((titania or (titanium adj \$2oxide) or "tio.sub.2") and ("photo-cataly"\$3 or (photo adj cataly\$3) or photocataly\$3))) not (((silica or (silicon adj \$2oxide) or "sio.sub.2" or alumina or (\$2aluminum adj \$3oxide) or "al.sub.2 o.sub.3" or (zirconium adj phosphate)) with exchang\$3) and ((cation or (positive\$2 adj charge\$1)) with exchang\$3)) and ((titania or (titanium adj \$2oxide) or "tio.sub.2") and ("photo-cataly"\$3 or (photo adj cataly\$3) or photocataly\$3))) | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/12 14:13 |
| - | 5590 | (titania or (titanium adj \$2oxide) or "tio.sub.2") and ("photo-cataly"\$3 or (photo adj cataly\$3) or photocataly\$3)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/13 14:06 |
| - | 4368 | (titania or (titanium adj \$2oxide) or "tio.sub.2") same ("photo-cataly"\$3 or (photo adj cataly\$3) or photocataly\$3)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/13 14:06 |
| - | 5    | ((titania or (titanium adj \$2oxide) or "tio.sub.2") same ("photo-cataly"\$3 or (photo adj cataly\$3) or photocataly\$3)) and (titania or (titanium adj \$2oxide) or "tio.sub.2") with (potassium adj silicate)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/13 14:09 |
| - | 18   | ((titania or (titanium adj \$2oxide) or "tio.sub.2") same ("photo-cataly"\$3 or (photo adj cataly\$3) or photocataly\$3)) and (titania or (titanium adj \$2oxide) or "tio.sub.2") with (hf or (hydrogen adj fluoride) or hydrofluoric)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/13 14:11 |
| - | 1    | ((titania or (titanium adj \$2oxide) or "tio.sub.2") same ("photo-cataly"\$3 or (photo adj cataly\$3) or photocataly\$3)) and (titania or (titanium adj \$2oxide) or "tio.sub.2") with (hf or (hydrogen adj fluoride) or hydrofluoric)) and (titania or (titanium adj \$2oxide) or "tio.sub.2") with (zirconium adj phosphate)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/13 14:11 |
| - | 10   | ((titania or (titanium adj \$2oxide) or "tio.sub.2") same ("photo-cataly"\$3 or (photo adj cataly\$3) or photocataly\$3)) and (titania or (titanium adj \$2oxide) or "tio.sub.2") with (zirconium adj phosphate)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/13 14:14 |
| - | 3    | ((titania or (titanium adj \$2oxide) or "tio.sub.2") same ("photo-cataly"\$3 or (photo adj cataly\$3) or photocataly\$3)) and (titania or (titanium adj \$2oxide) or "tio.sub.2") with (zirconium adj phosphate)) and (cation or (positive\$2 adj charge\$1)) with exchang\$3   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/13 14:13 |
| - | 3    | ((titania or (titanium adj \$2oxide) or "tio.sub.2") same ("photo-cataly"\$3 or (photo adj cataly\$3) or photocataly\$3)) and (titania or (titanium adj \$2oxide) or "tio.sub.2") with (zirconium adj phosphate)) and (cation or (positive\$2 adj charge\$1))   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/13 14:13 |
| - | 475  | (titania or (titanium adj \$2oxide) or "tio.sub.2") with (zirconium adj phosphate)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/13 14:14 |

|   |   |  |   |                  |
|---|---|--|---|------------------|
| - | 9 | ((titania or (titanium adj \$2oxide) or "tio.sub.2") with (zirconium adj phosphate)) and photocatalyst | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2003/08/13 14:14 |
|---|---|--|---|------------------|